Amendments to the Specification:

Please amend the first paragraph of page 1 as follows:

This application is related to the ~~following co-pending and~~ commonly assigned U.S. patent ~~application~~ 6,608,370, which is hereby incorporated by reference herein~~: application Ser. No. _______________, entitled "SEMICONDUCTOR WAFER HAVING A THIN DIE AND TETHERS AND METHODS OF MAKING THE SAME,"~~ ,and filed on same date herewith~~, by Shiuh-Hui Steven Chen, Raymond Garza, Carl Ross, and Stefan Turalski, attorney's docket number AP01983~~.

Please amend the first two paragraphs of the background on page 1 as follows:

As technology progresses, integrated circuits are being formed on smaller and thinner semiconductor dice for a variety of applications. Relatively thin integrated circuits (ICs) or semiconductor dice, also known as "ultra-thin" or "super-thin" ICs or dice, are used in applications such as smart cards, smart labels, sensors, and actuators. A thin die for sensors is described in ~~pending application Serial No. 09/629,270, filed on July 31, 2000, entitled "Strain Gauge" by Shiuh-Hui Steven Chen, et al.~~ U.S. Pat. 6,427,539, incorporated herein by reference in its entirety. There, a relatively thin semiconductor die with piezo-resistors act to measure the pressure of fluids in vehicles. The thin semiconductor die is bonded to a stainless steel port in order to measure diaphragm deformation.

For smart card applications, the thickness of the die may be as low as 100 micrometers (μm). In the future, it is anticipated that an even smaller thickness will be necessary. For sensors, a thin die may have a thickness of between 5 and 50 μm as described in ~~application Serial No. 09/629,270~~ U.S. Pat. 6,427,539.

Please amend the paragraph on page 9, starting line 5 as follows:

For purposes of illustration and description, a thin semiconductor die will be explained in the context of sensors for measuring the pressure of fluids in a vehicle. Such a thin die for sensors is described in detail in ~~pending application Serial No. 09/629,270, filed on July 31,~~

~~2000, entitled "Strain Gauge" by Shiuh-Hui Steven Chen, et al.~~ U.S. Pat. 6,427,539, incorporated herein by reference in its entirety.

Please amend the paragraph on page 9, starting line 21 as follows:

The die 20 illustrated in FIG. 1 has strain gauges 22, 24, 26, 28 with interconnected resistors positioned in a Wheatstone bridge arrangement. The gauges 22, 24, 26, 28 measure strain in response to and induced by pressure of a fluid, such as fluid in a vehicle. Accordingly, referring to FIG. 3, the thin semiconductor-sensing die 20 may be mounted to a fluid responsive diaphragm 40. The thin semiconductor-sensing die 20 and fluid responsive diaphragm 40, and how it may interconnect with a fluid housing, is further described in ~~application Serial No. 09/629,270, filed on July 31, 2000, entitled "Strain Gauge" by Shiuh-Hui Steven Chen, et al.~~ U.S. Pat. 6,427,539. In sum, the fluid responsive diaphragm 40 can be positioned to contact the sensed fluid in the vehicle. These fluid responsive diaphragms are preferably made of a corrosion-resistant material (such as stainless steel) that will not readily corrode in the fluid being sensed.

Please amend the last paragraph on page 10, starting line 14 as follows:

Another embodiment of a thin semiconductor-sensing die 60 is shown in FIG. 2. The thin semiconductor-sensing die 60 as shown in FIG. 2 is structurally and functionally similar to the one shown in FIG. 1 but has a single transverse strain gauge 62. The single transverse strain gauge 62 is registered and positioned in alignment with the geometrical center 64 of the die 60. This helps minimize electrical effects of thermal stress on the transverse strain gauge during measuring and operation of the vehicle. Here, the transverse strain gauge can include a single four contact resistor element oriented to maximize response to pressure induced stresses through shear stress effects. A further description of the thin semiconductor sensing die 60 and strain gauge 62 are provided in ~~application Serial No. 09/629,270, filed on July 31, 2000, entitled "Strain Gauge" by Shiuh-Hui Steven Chen, et al.~~ U.S. Pat. 6,427,539, incorporated herein by reference in its entirety.

Please amend the two paragraphs on page 12, starting on line 3 as follows:

The tethers 78 may have a variety of geometric patterns and sizes. In one embodiment, as shown in FIG. 4, the tethers 78 may be substantially triangular. Here, the substantially triangular tethers 78 have a base 80 that is formed on the topside ~~82~~ 83 of the wafer 70 and a tip 82 that extends across the open trench 76 and onto the die 20. The tip 82 of the tether 78 may be patterned so that it is partially cutoff to limit the portion of the tether 78 extending on the die 20. The tether 78 should, however, extend sufficiently onto the die 20 to allow the die 20 to be retained to the wafer support body 72. This attachment should be sufficient to withstand normal shipping and handling requirements for a standard wafer. In one embodiment, for a die 20 having a thickness of about 15 μm, each of the tethers extend at least 10 μm over the outer perimeter 74 of the die 20.

In another embodiment, as shown in FIG. 5, a tether 178 is also substantially triangular but is patterned with grooves 184. The substantially triangular tethers 178 have a base 180 that is formed on the topside ~~82~~ 83 of the wafer 70 and a tip 182 that extends across the open trench 76 and onto the die 20. The grooves 184 are at least partially formed in the portion of the tether 178 that extends over the trench 76. The grooves 184 define a neck 186 that extends between the two grooves 184. The benefit of including grooves 84 in the formation of the tethers 178 is that they allow for better separation of the die 20 from the wafer 70 during pick and place operations. Although the specific width of the neck 186 is application specific, in one embodiment for a thin die 20 having a thickness of about 15 μm, the width of the neck 186 may have ranges between 10 and 40 μm. What is important is that a cohesive failure point (or break point) of the tethers 178 be along the edge of the semiconductor die and such that the tether itself breaks rather than being peeled from the thin die during pick and place operations. This break point should be sufficiently wide to withstand normal shipping and handling requirements for a standard wafer – yet be sufficiently thin to break along the outer perimeter of the die 20 during pick and place operations. As shown in FIGS. 4 and 5, in a preferred embodiment, the portion of the tethers 78, 178 extending across the open groove 76 has its smallest width adjacent to the outer perimeter 74 of the die 20. This permits the break point to be right at the outer perimeter 74 to limit any overhang of the tether that may result after die separation.

Please amend the last paragraph on page 13, starting on line 17 as follows:

A process for making or forming the tethers 78, 178 for a thin die 20 on a wafer 70 will now be explained. Referring now to FIG. 6A, after forming the circuit on the die 20 on the topside ~~82~~ 83 of the wafer 70, the process includes the step of forming a cavity 88 on a backside 90 of the wafer 70 (beneath the circuit on the die 20). This backside cavity 88 defines a thin layer 92 that includes the circuit on the die 20. The backside cavity 88 will also define the wafer support body 72 that is substantially thicker than the thin layer 92 and the die 20. The thin layer 92 has a thickness slightly greater than the die 20.

Please amend the three paragraphs starting on page 14, line 10 as follows:

As shown in FIG. 6B, the next step is the formation of a trench 76 around the circuit on the topside ~~82~~ 83 of the wafer 70. As mentioned above, the trench 76 will define the outer perimeter 74 of the die 20 having a circuit. The trench 76 may be formed using known semiconductor etching methods. In one embodiment, the trench 76 is formed using an etch process such as reactive ion etching (RIE), plasma etching or sputter etching. The depth of the trench 76 is application specific and will depend on the desired thickness of the die 20 and the thickness of the thin layer 92. The trench 76 should have a depth of at least the desired thickness of the die 20 but smaller than the thickness of the thin layer 92 illustrated in FIG. 6A. In the above example where the desired thickness of the die 20 is to be about 15 μm and the thin layer 92 is about 22 μm, the trench 76 may be formed to about 18 μm deep.

As shown in FIG. 6B, the next step is the formation of a trench 76 around the circuit on the topside ~~82~~ 83 of the wafer 70. As mentioned above, the trench 76 will define the outer perimeter 74 of the die 20 having a circuit. The trench 76 may be formed using known semiconductor etching methods. In one embodiment, the trench 76 is formed using an etch process such as reactive ion etching (RIE), plasma etching or sputter etching. The depth of the trench 76 is application specific and will depend on the desired thickness of the die 20 and the thickness of the thin layer 92. The trench 76 should have a depth of at least the desired thickness of the die 20 but smaller than the thickness of the thin layer 92 illustrated in FIG. 6A. In the

above example where the desired thickness of the die 20 is to be about 15 μm and the thin layer 92 is about 22 μm, the trench 76 may be formed to about 18 μm deep.

As shown in FIG. 6C, the process also includes a step of forming tethers 78 on the topside ~~82~~ 83 of the wafer 70. The tethers 78 also extend across and into select portions of the trench 76 and between the wafer support body 72 and the die 20. The tethers 78 should be patterned. As described above, FIGS. 4 and 5 show top views of some embodiments of patterned tethers 78, 178. Note that FIG. 6C uses the reference number for the tethers 78 in FIG. 4. However, the view shown in FIG. 6C would apply equally to the tethers 178 shown in FIG. 5 and even for other geometric shapes of tethers. What is critical is that the tethers form a bridge or other connection between the support body 72 and the thin die 20 of the wafer 70.